

Figure 1

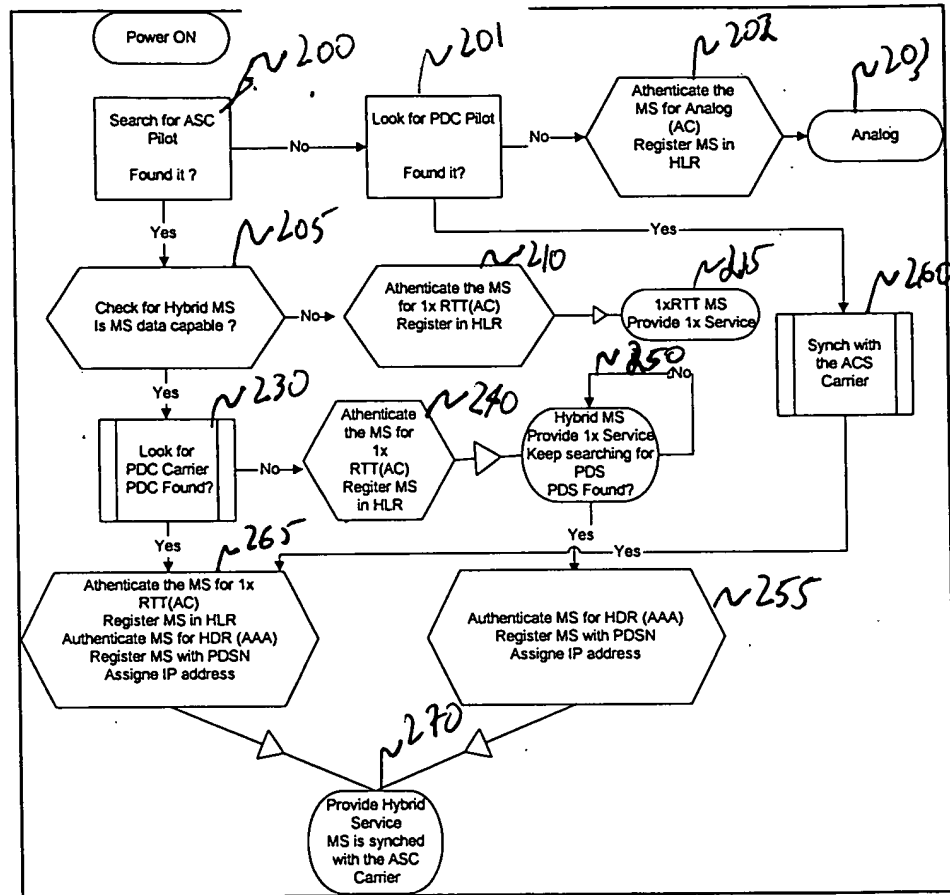


Figure 2

3.6

INCOMING DATA CALL IN IDLE STATE

MS is on ASC
MS has IP address
PDCN notifies BSC of call ~ 200
BSC notifies MSC of call via A- interface ~ 205
MSC checks COS ~ 210
If automatic switch over is ON
 If is High data rate is ON ~ 245
 Synch with PDC
 Switch MS to PDC
 Connect MS to PDCN → Call is ON , Call Complete
 MS disconnect data call
 Synch back with ASC ~ 220
 Else
 Use the low rate data of 1xRTT
 MS can use simultaneous data and voice
 Else ~ 225
 Send an SMS with incoming data call (Y/N)
 If MS accepts call
 Send SMS message, Would you like to use high or low data
 If high data rate is selected ~ 230
 Synch with PDC
 Switch MS to PDC
 Connect MS to PDCN → Call is ON
 MS disconnect data call
 Synch with ASC
 Else
 Use the low rate data of 1xRTT ~ 235
 MS can use simultaneous data and voice
 Else
 Data call is not accepted ~ 240

Figure 3

3.7

OUTGOING DATA CALL IN IDLE STATEMS is on ASCMS has IP addressMS initiates a data callIf automatic switch over is ON ~250If is High data rate is ON ~255Synch with PDCSwitch MS to PDCConnect MS to PDCN → Call is ONMS disconnect data callSynch back with ASCElse ~260Use the low rate data of 1xRTTMS can use simultaneous data and voiceElse ~270Send SMS message, Would you like to use high or low dataIf high data rate is selected ~275Synch with PDCSwitch MS to PDCConnect MS to PDCN → Call is ONMS disconnect data callSynch with ASCElse ~280Use the low rate data of 1xRTTMS can use simultaneous data and voice

Figure 1

09474056 122899 662227 95042460

3.8

INCOMING DATA CALL WHILE ON VOICE

MS is on ASC

MS has IP address

PDCN notifies BSC of call

BSC notifies MSC of call via A- interface*

MSC checks COS

If automatic switch over is ON

Check Fundamental Data rate feature

If is High data rate is ON

Place caller on hold in the MSC

Inform voice call of situation (RCAN)

Call is still active in the BSC and MSC (Billing is ON)

Synch with PDC

Switch MS to PDC

Connect MS to PDCN → Call is ON

MS has control to switch back to voice call

MS disconnect data call

Synch with ASC

Bring back voice call

Else

Use the low rate data of 1xRTT

MS can use simultaneous data and voice

Else

Send an SMS with incoming data call (Y/N)

If MS accepts call

Send SMS message, Would you like to use high or low data

If high data rate is selected

Place caller on hold in the MSC

Inform voice call of situation (RCAN)

Call is still active in the BSC

and MSC-Billing On

Synch with PDC

Switch MS to PDC

Connect MS to PDCN → Call is ON

MS has control to switch back to voice

call

MS disconnect data call

Synch with ASC

Bring back voice call

Else

Use the low rate data of 1xRTT

MS can use simultaneous data and voice

Else

Data call is not accepted

Figure 5

3.9

OUTGOING DATA CALL WHILE ON VOICE

MS is on ASC

MS has IP address

MS initiates a data call

If automatic switch over is ON

Check Fundamental Data rate feature ~350

If is High data rate is ON

Place caller on hold in the MSC

Inform voice call of situation (RCAN)

Call is still active in the BSC and MSC (Billing is ON)

Synch with PDC

Switch MS to PDC

Connect MS to PDCN → Call is ON

MS disconnect data call

Synch back with ASC

Bring back voice call

Else ~355

Use the low rate data of 1xRTT

MS can use simultaneous data and voice

Else ~360

Send SMS message. Would you like to use high or low data

If high data rate is selected

Place caller on hold in the MSC

Inform voice call of situation (RCAN)

Call is still active in the BSC and MSC-Billing On

Synch with PDC

Switch MS to PDC

Connect MS to PDCN → Call is ON

MS disconnect data call

Else ~370

Synch with ASC

Bring back voice call

Else

Use the low rate data of 1xRTT

MS can use simultaneous data and voice

Figure 6

004405 123222 95042460

INCOMING VOICE CALL WHILE ON DATA (HYBRID)

MS is on the PDC carrier

MSC get a voice call

Check COS for Voice Automatic Switch over

If feature is on block

Block the call

Give RCAN

Else

If feature is ON

Check Supplemental Data rate feature

If the High data rate is ON

Cannot accept the call

Caller is informed with RCAN

Else

Synch with ASC

Continue the data call on lower data

Accept the voice call

Treat call as 1XRTT

Else

Send SMS to user, voice call is coming, accept call ?

If caller accepts call

Send SMS to user , "High data rate is no longer available"

Synch with ASC

Continue the data call on lower data

Accept the voice call

Treat call as 1XRTT

Else

Call is rejected

Caller is informed with RCAN

Figure 8

OUTGOING VOICE CALL WHILE ON DATA (HYBRID)

MS is on the PDC carrier

MS initiates a voice call

Send SMS to user " Are you sure, you will loose your high data rate ?"

If the user accepts

Synch with ASC

Continue the data call on lower data

Make the voice call

Treat call as 1XRTT call

Else

Call is not placed

3.1

POWER ON

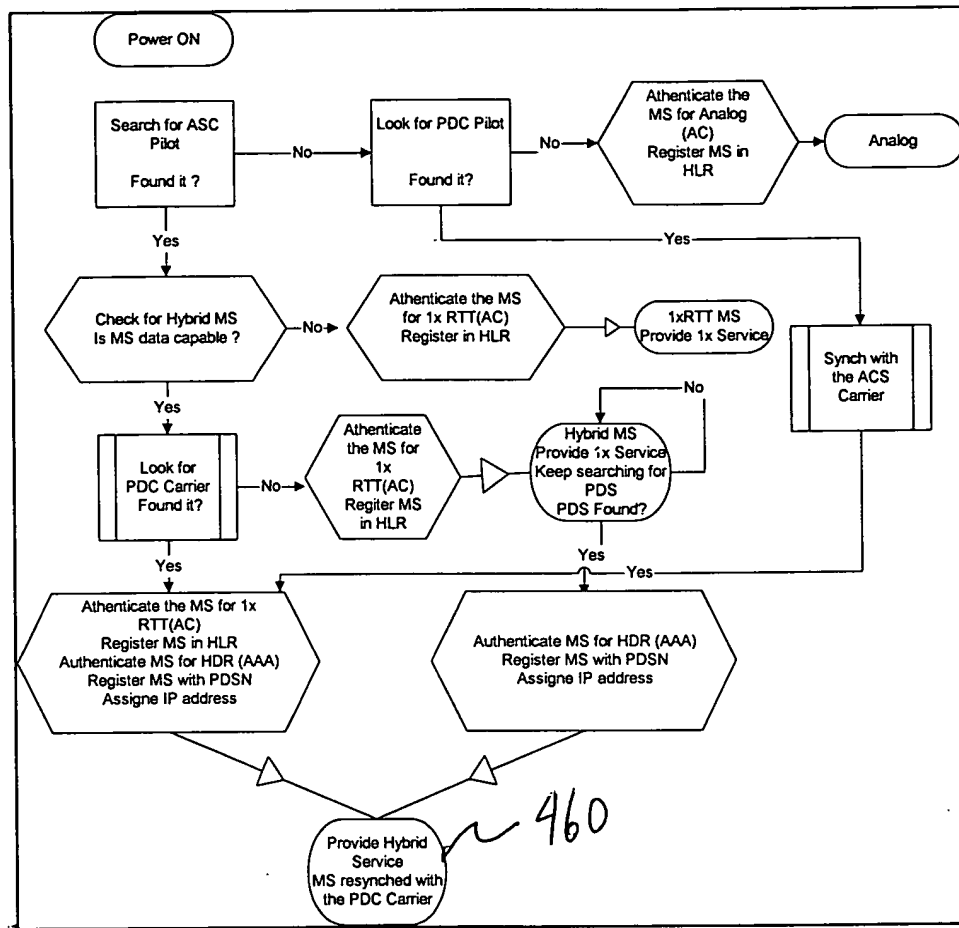


Figure 9

3.4 INCOMING VOICE CALL IN THE IDLE STATE

MS is on PDC

MSC gets the call

MSC checks the COS for Automatic switch for voice call

If feature is ON

MSC instructs the MS to search for the ASC

MS finds the ASC and informs the MSC

MS switches to ASC

MSC sends that call to the MS → call is ON

Call is complete (Release)

MSC instructs the MS to synch back with the PDC

MS is synched with PDC

Else

MSC sends an SMS to the user telling him about the call

If MS accepts the call

MSC instructs the MS to search for the ASC

MS finds the ASC and informs the MSC

MS switches to ASC

MSC sends that call to the MS → call is ON

Call is complete (Release)

MSC instructs the MS to synch back with the PDC

MS is synched with PDC

Else

Call is rejected

Figure 10

09474056 12299
66222460

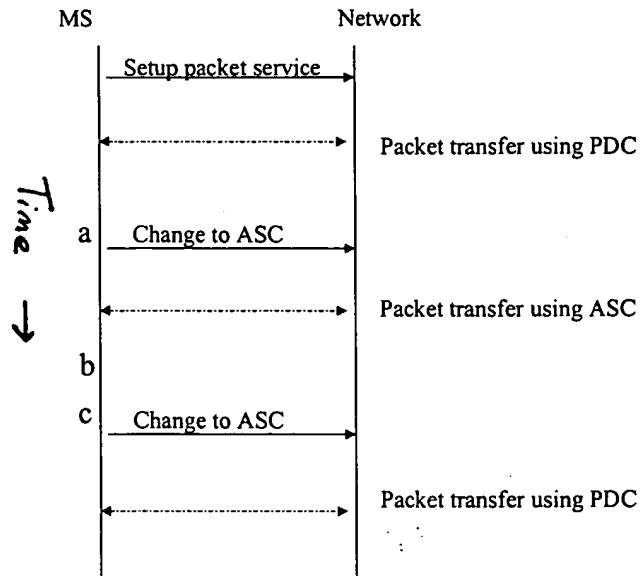


Figure 11

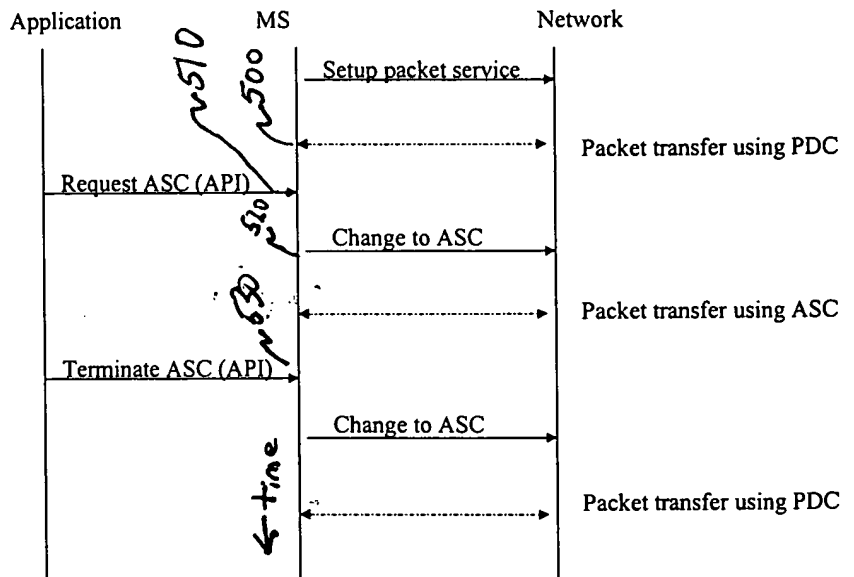


Figure 12